

Final Report

43 Solar Cookers

**Hualongkou Village, Tiantang Township
Tianzhu Tibetan Autonomous County
Gansu Province, China**

to

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August 21, 2007
Songji Zhaxi (Lionel)

Photographs



Villagers unload new solar cookers.



A recipient's firewood and coal.



Drying rapeseed plants used to make fire in the kitchen.



Collected dung at a recipient's home.

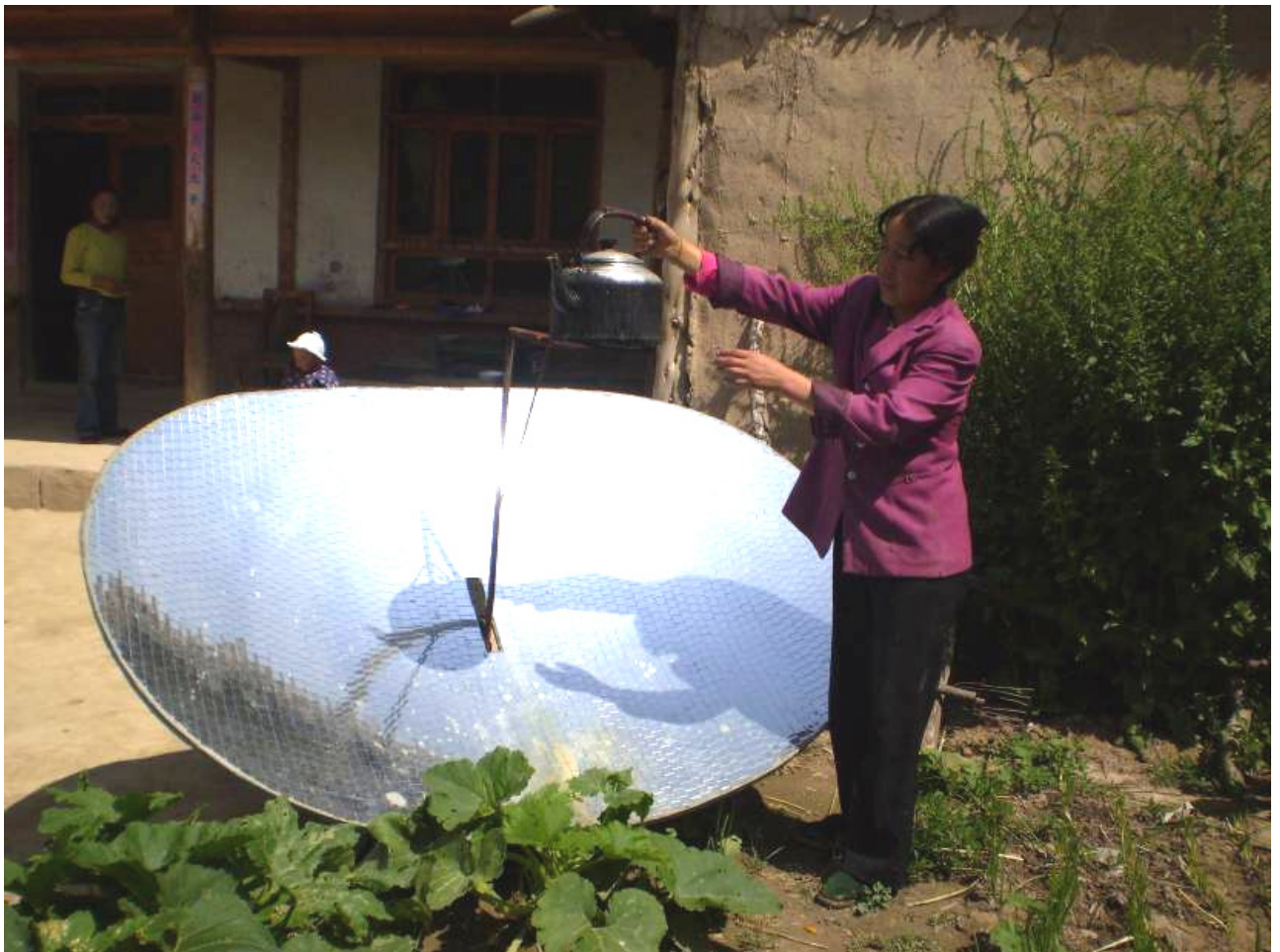


Coal at a recipients' home.





Some locals burn crop stalks that otherwise would be fed to their livestock.



Mrs. Cairangcuo boils a kettle of water on her new solar cooker.



Mrs. Li Cunhua with her new solar cooker.



Some of the recipients.



Recipients giving their fingerprints.

1. Project Information

- 1. Name:** Solar Cooker Project
- 2. Location:** Hualongkou Village, Tiantang Township, Tianzhu Tibetan Autonomous County, Gansu Province.
- 3. Donors:** Lila Louie, Tasha Michelman, Maki Teshima, Ketil Hviding, David Weisman, Vanessa Weaver, Robert Schachat, Jeffrey Shapiro, Emily Huebner, Anya Kholodenov, Kristos Kowgios, Yili Ong
- 4. Supervisor:** Kevin Stuart
- 5. Applicant:** Songji Zhaxi (Lionel)
- 6. Local Contribution:** $43 \times 50 = 2,150$ RMB
- 7. Donation:** $4,788.32 \text{ RMB} + 500 = 5,288.32 \text{ RMB}$
- 8. Reporter:** Songji Zhaxi
- 9. Goals:**
 - Reduce cash expenditures for coal, firewood, and so on.
 - Reduce threats to life and health from obtaining fuels.
 - Reduce the family workload.
 - Save time by reducing time spent obtaining fuel.
 - Environmental protection.

The project was completed under the supervision of a local working group consisting of Liu Changcai, Kong Fanchun, and Sangji Zhaxi (Lionel). The project was very successful and the recipients are very grateful.

2. Village Conditions

Hualongkou villagers earn their living mainly by farming in a mountain area where it is impossible to use tractors to assist with farm work. None of the fields are irrigated, making the yield heavily dependent on the weather. Usually, there is no extra grain to sell. Some families have a few sheep or goats.

Most people in Hualongkou Village are Tibetan and Mongghul; there are some Han as well. The annual cash income for a village resident is around 1,500 rmb, which does not meet basic living expenses.

There are high levels of illiteracy.

The village is not near any natural fuel resources other than a forest, which is fenced all around and carefully guarded; it is impossible for the local people to obtain firewood from that source. Therefore, villagers burn mostly coal, which costs more than 350 RMB per ton. They also use branches cut from their own trees and a little dung for cooking. However, since this village is primarily a farming community, people have few livestock and thus there is little dung. As a result, they go miles away to collect dung. They know it is a natural fertilizer for their grassland, and over-collection of it causes damage to the grassland, but still they must burn it. Another problem with dung is that it burns quickly, so large amounts are needed to cook a decent meal.

Coal is expensive consequently, villagers work in coal mines for months, even though they know that they are risking their lives underground since accidents are frequent there. The coal given to them at the end of the year as their wages only lasts for a few months. Last year, a man from the village was killed by a gas explosion while digging coal in a coalmine far from home.

Compounding the tragedy was the loss of his earning power. The man of a family goes out and earns money to send his children to school and has the task of providing for the care of his wife, parents, and children.

3. Interviews with Villagers

After distribution of the solar cookers, I visited an **old granny** in the village. She told me that when she cooked something before, she needed her grandson or granddaughter to watch the fire in the stove, but now she can do it all by herself. "You know, this is a very useful thing, especially for old people who don't go out to work. It is easy to boil water and cook food while at home," she added.

"Did you have to go and collect firewood and dung before you got the solar cooker?" I asked.

"Oh yes. Everyone had to go to the mountains far away. This farming place has few livestock so the only possible place to find dung is in the mountains where there are pastures. People also collect firewood to cook with in the kitchen. It is heavy work. Every time we had to carry a big bundle on our back from the other side of this mountain to our home. A lot of people got sick from such heavy work," she said.

"Yes, I know this well, too. It is the same all over this place. The forests are protected by the government, so we can only go to cut bushes. How often do you go and collect firewood?" I asked.

"I go once or twice a week," she said.

"Do you think you still have to go to collect dung and firewood so often now?" I asked.

"We don't have to go at all in summer because we don't have to make a fire for heating, and the solar cooker does all the cooking. Even in winter, we are going to need much less," she said.



Mrs. Hu (b. 1955) said, "Collecting dung is such a waste of time. Sometimes you can find dung in the mountains but when you can't, which is usually the case, going to collect dung is a two to three hour walk for nothing. Now the solar cooker does everything a stove does, except provide heating. In summer we don't have to use any of our fuel."

"How much coal can a solar cooker save per day?" I asked.

"The solar cooker not only saves coal, but also fuels like firewood and crop stalks. In terms of saving, in winter, it saves less, because we still have to make fire in our stoves to keep the house warm, but it saves fuels burned in the kitchen. In summer, it saves a lot; at least 20kg per day," she said.

"How much firewood and crop stalks can be saved?" I asked.

"To cook one meal in the kitchen you need at least an armload of tree branches or a big back-basket full of stalks. Just imagine how many times you cook, and try to think if you don't have to go to collect that much firewood, and if you can have those baskets full of stalks for your mules, yaks, and sheep," she said.



Mr. Ji (b. 1977) has worked in a coalmine for years. He said, "For years, I have been dreaming of coming out of the coalmine to elsewhere to earn money, but the more I struggle, the longer I have to stay. No one wants to stay where you could lose your life any time, and no one wants to stay in such a place for months just to get a little coal at the end of the year."

"Do you think the solar cooker will be a help for you?" I asked.

"Of course; I have done a rough calculation, and I think it can at least save two to three tons of coal every year for my family. You know that is more than 1,000 RMB. I have been thinking about leaving the coalmine, but I couldn't because otherwise I wouldn't have enough fuel for the year. But now, with the help of the solar cooker, I can go to other places where I can at least be safe. I really thank the people who bought us these cookers. They make such a difference. We can do nothing for you, but extend our sincere appreciation. And I also think that the person who actually

invented this machine should get a prize. Solar cookers are so simple, so easy to manipulate; anyone from children to old people can lift up a kettle of water and use it because you only need the sun for it to work. It saves resources, time, and labour, while producing no pollution," he said.



Zhaxi (b. 1994) told me, "The solar cooker is not only nice but very useful to us."

"How?" I asked.

"When my family used to cook in the kitchen, I had to help my mom watch the fire while she was cooking. I hate that. I hate to stay at one place and not move for hours. And often I was not finished with my homework, and then my mom would call and tell me to watch that stupid fire. Now, it seems that they don't need any help when they cook on the solar cooker, and they cook more frequently, even my old grandma cooks often now," he said.

"What do they cook with the solar cooker?" I asked.

"My mom bakes bread, noodles, and rice, and also boils water for the family members and the pigs," he said.

感谢信

亲爱的各位捐赠人，

首先我代表全体受益的华龙口村民向各位捐赠人表示衷心的感谢。我们深受你们的宽宏，你们的大度而感动，而在此时，除此之外，也不知道如何道谢。

地理位置上来说，我们村坐落在甘肃省，天祝藏族自治县，天堂乡一个偏僻的山沟里。因为山沟坡度大，沟底窄，居住在这里的村民的土地面积小，而且都是旱地，靠天吃饭的地理环境，不易种植经济作物，年底的收成也只能勉强自给自足。昂贵的农业化肥对于村民更是雪上加霜。因此，村里的男人只能将妻儿常年留在家里到外地去打工挣钱。村里还有些男人需要到一个私人煤矿上班。那里没有生命保障，瓦斯爆炸常有发生，去年年初我们村里就有一个被埋到了煤井里。但是由于生活所迫，为了年底那点由煤矿发给全体工人的微薄的煤炭奖励，他们毫无顾忌地置生命于不顾地选择煤矿。我们村那个村民出事之后，家里的老人无人看管赡养，婚后不久的妻子就要背着寡妇的名声另找婆家，孩子更是年幼就没了父亲。

这种环境也迫使着许多孩子年幼辍学，孩提之年，就得挑起生活的负担。这也使我们村的生活水平长时间停留在现状。

现在，我们收到了这些慈善人士的援助，村民们基本上都有了捐赠的太阳灶。它为我们提供了不少方便，能帮助我们节省很多煤炭，很多柴火，很多干草。可喜的是村里的男人们也不必再去冒险掏煤了。很多家长更是为不需要再花时间去砍柴火，能挣钱供孩子上学而感到兴奋。家里做饭也不再需要两个人。

最后，我还想重复表示你们的援助项目非常成功，为我们这些偏远居民带来了方便和光明。在这里，我再次代表华龙口村全体受益的村民向你们表示感谢，我们也会将这份感激之情永远记在心里。

再次感谢！

此致

敬礼

村长：刘常才

2007.8.10

Translation

August 10, 2007

Dear All,

First, on behalf of the recipients, I want to thank you for giving us these solar cookers. We really appreciate your generosity and kindness. Frankly speaking, in addition to these thankful words, we really can hardly express ourselves.

Geographically, our village is located in a very remote mountain valley in Gansu Province. Since the mountains around are steep with little level area in the valley, the village does not have enough farmland for people living there. The income from farming is very limited since the yield is heavily dependent on the weather. Therefore, the village men must leave the village to do construction work, building roads, and so on with all the housework left behind to their wives and children. Some village men go to work in the coalmines, risking their lives just for a yearly supply of coal. It is dangerous, but necessary; it is not a choice. This poor situation has also forced many children to drop out from school ensuring that this life condition will remain at this level.

The solar cookers you have funded can greatly help this village, especially, the ones who work in the coalmines who can now stop going there. Parents are delighted with opportunities for their children to attend school instead of spending time collecting fuel.

In short, this project provides much convenience and it is as successful as you could have wanted. We have much appreciation for your donation and will keep this valuable friendship in the deepest part of our hearts.

Finally, thank you again!

Best wishes

Village leader: Liu Changcai

6. Project Activities

2007	Activities	Participants
July 3	Dr. Kevin Stuart gave your donation to me	Kevin Stuart, Songji Zhaxi
July 15	Negotiated with the solar cooker factory boss	Cao Yongze, Songji Zhaxi
July 18	Chose recipients, and collected local contributions	Songji Zhaxi
July 29	Negotiated with the solar cooker factory boss	Cao Yongze, Songji Zhaxi
August 3	Delivered the solar cookers to the village	Songji Zhaxi, the factory
August 3	Distributed solar cookers to the recipients	The Local Working Group
August 3	Visited and interviewed recipients	The Local Working Group
September 3	Final report	The Local Working Group

Recipients

姓名:

孔繁胜

孔繁顺

李生鸿

张立海

王胡廷

王同文

王卓玛

冷生海

赵文生

胡文原

岳国生

岳国飞

胡文玉

祁永海

祁永生

祁永初

董生福

董生刚

墨永宝

墨长倩

姓名:

孔西加措

卓玛草

拉毛草

贡保孔西

才让孔西

李甘朋鸟

张玉生

胡金山

胡银山

李长生

才旦

久美

李桑杰

王玉飞

刘常吉

刘常才

王才让

马孔西

旦正加

王同梅

00123

2006.1

姓名:

李寿平

赵永胜

姓名:

李积元

Receipts

1		收 据		0002524	
客户名称		单位		金额	
项 目	单位	数量	单价	元	角 分
太阳灶		43	营 业 票	7095	00
合 计 (大写)		拾 万 仟 佰 拾 元 角 分			
人民币					
填票人		收款人 王英虎		单位名称(盖章)	

2733395	263010514045
租汽车	QN W 02733395
2	青海省出租汽车定额发票
帐 联)	(发 票 联)
拾 圆	壹 拾 圆
月 日	未加盖用票单位财务 章或发票专用章无效
款人(章):	年 月 日

3

西宁大十字百货商店

有限公司收款凭据

1997年 8月 3日

③ 70

0146789

品名	单位	数量	单价	金额
精制	个	1	16	16
茶	斤	2	3	6
瓜子	斤	2	22	44
合 计				66

收款员:

营业员: 2081635

[illegible]



10

收条

今收到饭钱贰拾伍元整。

25.00 —

宏源饭馆
马禄

2007.8.4

12

收条

今收到车费(哈湾—华龙口村—哈湾)人民币伍拾元整。

李积元

2007.8.4

Expenditures

Receipt #	2007	Description	Amount (RMB)
1	Aug. 3	43 solar cookers × 165 RMB each	7,095
2	Aug. 1	Taxi fee	10
3	Aug. 1	Two batteries, a recharger	66
	Aug. 2	Bus: Xining to Huzhu	8
4	Aug. 2	Bus: Huzhu to Jiading	20
5	Aug. 1	Taxi fee	10
6	Aug. 5	Taxi fee	10
7	Aug. 5	Bus: Jiading to Huzhu	20
	Aug. 5	Bus: Huzhu to Xining	8
8	Aug. 5	Taxi fee	10
9	July. 23	Taxi fee	10
10	July. 23	Taxi fee	10
11	Aug. 3	Food fee	25
12	Aug. 4	Roundtrip motorcycle taxi fee	50
<i>no receipts</i>	July 23	Bus: Xining to Jiading	28
	July 23	Bus: Jiading to Xining	28
	Aug. 3	Two white scarves and two packages of cigarettes for the two drivers	18
Total expenditure:			7,428